

## ABSTRACT

To provide an image matching method, an image matching apparatus, and a program able to perform a matching images at a high accuracy. A Hough transform unit 15 performs a Hough transform processing to a registered image AIM and an image to be matched RIM, in detail, an image processing by which points in each image are transformed to a curved pattern and linear components in each image are transformed to a plurality of the overlapped curved-patterns, based on a distance  $\rho$  from a reference position to a shortest point in a straight line  $L$  passing through a point in the image and an angle  $\theta$  between a straight line  $n_0$  passing through the reference position and the shortest point and a x-axis as a reference axis including the reference position, and generating a transformed image S1621 and a transformed image S1622. A judgment unit 164 performs a matching of the registered image AIM and the image to be matched RIM based on a degree of an overlap of the patterns in the transformed image S1621 and the transformed image S1622 and a matching or mismatching of the patterns in the same.